REMARKS

Applicants concurrently file herewith an Excess Claim Fee Payment Letter for one (1) excess independent claim and one (1) excess total claim.

Claims 1-24 are all of the claims presently pending in the application. Claims 1-2, 4, 7, 9-11, 15, 17, 19-21 and 23 have been amended to more particularly define the invention. Claim 24 has been added to provide more varied protection for the claimed invention and to claim additional features of the invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 3-6 and 13-14 stand rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. Claims 1, 11, and 23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Domini et al. (U.S. Patent No. 6,085,206) (hereinafter "Domini"). Claims 2-10 and 12-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Domini and further in view of Schabes et al. (U.S. Patent No. 6,424,983) (hereinafter "Schabes").

These rejections are respectfully traversed in the following discussion.

I.   THE CLAIMED INVENTION

The claimed invention (e.g, as defined in exemplary claim 1) is directed to a method of intelligent spellchecking. The method includes performing a spellchecking of a word by considering an entire sentence and a structure of the entire sentence, in determining whether the word is misspelled. The performing a spellchecking includes determining a context of said word by slot-filling.

Conventional spellcheckers work by looking up words in dictionaries. If the word is not found in the dictionary then it is considered a misspelled word. This method does not

cover identification of words that are correct English words, but which are wrong in context. Certain conventional spellcheckers address this issue by using a statistical method to look at pairs of words to reduce the number of possible parts-of-speech features assigned to each word as a preprocessing step to parsing. Then, a substitute calculation reveals erroneous use of valid English language words for listed pairs of commonly confused words.

However, in this method the context that is used to identify potential misspellings is very small. That is, at most only a portion of a phrase or adjacent words are examined for the context of the word. Thus, the sample of words to determine the context of what is meant and what the correct word should be is limited (see Application at page 3, lines 1-3).

The claimed invention of exemplary claim 1, on the other hand, provides a method of intelligent spellchecking that includes <u>performing a spellchecking by determining a context of said word by slot-filling</u> (e.g., see Application at page 11, lines 4-9). The method of the present invention takes into consideration an entire sentence and a structure of the entire sentence to determine whether a word is misspelled or not, which allows for more accurate spellchecking (see Application at page 3, lines 13-16).

II.   THE 35 USC §112, FIRST PARAGRAPH REJECTION

Claims 3-6 and 13-14 stand rejected under 35 U.S.C. §112, first paragraph. Specifically, the Examiner states that the claims contain subject matter, "slot-filling information of the first parse", which is not described in the specification in such a way as to enable one skilled in the art to make and use the invention. Applicants respectfully submit that the Examiner's rejection <u>is erroneous</u>.

That is, the phrase "slot-filling information of the first parse" is clearly described in the Application. The Application discloses that "in step 260, the slot-filling information of parse 1 is compared to the slot-filling statistics for the original word. The slot-filling statistics may include, as discussed above, for example, when a word such as "manager" occurs 10 times as the noun object of "of", and the word "manager" is encountered with "of", then such an occurrence may indicate a high likelihood of error since seldom will one encounter the term "manager of"". The Application clearly discloses the slot-filling information of the first parse with enough specificity to enable one skilled in the related art to make and use the claimed

invention.

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III.   THE PRIOR ART REFERENCES

A.   The Domini Reference

The Examiner alleges that Domini teaches the claimed invention of claims 1, 11 and 23. Applicants submit, however, that there are elements of the claimed invention which are neither taught nor suggested by Domini.

That is, Domini does not teach or suggest "*wherein said performing a spellchecking comprises determining a context of said word by slot-filling*" as recited in claim 1, and similarly recited in claims 11 and 23.

As noted above, unlike conventional spellchecking methods, the claimed invention provides a method of intelligent spellchecking that includes performing a spellchecking by determining a context of said word by slot-filling (e.g., see Application at page 11, lines 4-9). The method of the present invention takes into consideration an entire sentence and a structure of the entire sentence to determine whether a word is misspelled or not, which allows for more accurate spellchecking (see Application at page 3, lines 13-16).

The novel features of the claimed invention are not taught or suggested by Domini. Indeed, the Examiner merely alleges that Domini discloses performing a spellchecking of a word by considering an entire sentence and a structure of the entire sentence. The Examiner attempts to rely on the abstract and column 3, line 31 through column 4, line 30 of Domini to support his allegations. The Examiner, however, is clearly incorrect.

Nowhere, in these Figures (nor anywhere else for that matter) does Domini teach or suggest a method of intelligent spellchecking that includes performing a spellchecking by determining a context of said word by slot-filling. Indeed, the Examiner does not even allege that Domini teaches or suggests this feature. In fact, Domini merely teaches how to integrate spellchecking and grammar into one user interface. The spellchecking and grammar checking are done in two separate steps (see Domini at column 3, lines 15-40).

Therefore, Applicants submit that there are elements of the claimed invention that are

not taught or suggest by Domini. Therefore, the Examiner is respectfully requested to withdraw this rejection.

B.   The Schabes Reference

The Examiner alleges that Schabes would have been combined with Domini to form the claimed invention of claims 2-10 and 12-22. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Applicants submit that these references would not have been combined as alleged by the Examiner. Indeed, these references are directed to different problems and solutions. Specifically, Domini is directed to <u>a word processor program module that provides a user interface for combined spelling and grammar functions that are consistent in operation</u>, whereas Schabes is merely directed to a <u>spelling checking system that corrects words that have been misused in a given context</u>. Therefore, these references are completely unrelated, and no person of ordinary skill in the art would have considered combining these disparate references, <u>absent impermissible hindsight</u>.

Furthermore, the Examiner's motivation to modify Domini ("to include parsing the resulting sentence to produced a second parse") does not appear to be a problem in Domini that would require a solution. Thus, as pointed out in MPEP 2143.01, the Examiner's motivation is "improper". That is, "the mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination" (emphasis added in MPEP).

Moreover, neither Domini nor Schabes, nor any combination thereof, teaches or suggests "*wherein said performing a spellchecking comprises determining a context of said word by slot-filling*" as recited in claim 1, and similarly recited in claim 20.

The novel features of the claimed invention are not taught or suggested by Schabes. Indeed, the Examiner alleges that Schabes discloses comparing slot-filling information of the first parse to slot-filling statistics for the original word. The Examiner attempts to rely on column 17, line 8 through column 22, line 26 of Schabes to support his allegations. The

Examiner, however, is clearly incorrect.

Nowhere, in this passage (nor anywhere else for that matter) does Schabes teach or suggest a method of intelligent spellchecking that includes performing a spellchecking by determining a context of said word by slot-filling. Indeed, Schabes uses finite state technology, whereas the claimed invention uses slot grammar technology, which are both methods of parsing a sentence. The claimed invention measures the likelihood of the correctness of one word among a list of alternatively spelled words by context, where context is determined by slot-filling (which can express remote relations), whereas the method of Schabes measures context by the operation of a finite state automation. These parsing methods are rather different. Furthermore, as recited in column 21, lines 41-44 of Schabes, the invention of Schabes does not allow recursive rules, however, the claimed invention does.

However, if the Examiner wishes to persist with this rejection Applicants respectfully request that the Examiner specifically point out the features of the prior art references that the Examiner is relying upon to teach the recited features of the claimed invention, as opposed to generally referring to the disclosure of the prior art reference (e.g., column 17, line 8 through column 22, line 26 of Schabes).

Therefore, Applicants respectfully submit that these references would not have been combined, and that, even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

IV. NEW CLAIMS

New claim 24 is added to provide more varied protection for the present invention and to claim additional features of the invention. This claim is independently patentable because of the novel features recited therein.

Applicants respectfully submit that new claim 24 is patentable over any combination of the applied references at least for the reasons to those set forth above with respect to claims 1-2 and 4-23.
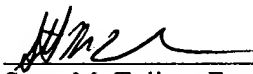
V.   FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicants submit that claims 1-2, and 4-24, all of the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance.   The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

Date: October 15, 2004

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